

IN THE CLAIMS:

Claim 1 (currently amended) A process for preparing metal carboxylates in the form of dry powder with the formula  $M(RCOO)_2$ , where a basic metal compound M is ~~the~~ a divalent metal cation of zinc ( $Zn^{2+}$ ) or copper ( $Cu^{2+}$ ), R can be H or a  $CH_3(CH_2)_2$ - group, ~~characterized in that it comprises~~ the process comprising the following stages:

- i) ~~Mixing~~ mixing a carboxylic acid ( $RCOOH$ ) in stoichiometric proportions with a dry basic compound of the divalent metal, in the absence of solvents, which gives rise to an exothermic reaction in which water is produced as a by-product[[.]],
- ii) ~~Keeping~~ keeping said exothermic reaction stirred for a sufficient time for removal of the water, giving rise to a carboxylate of Zn(II) or Cu(II), and
- (iii) pouring an aminoate onto the carboxylate to yield a dry metal carboxylate-aminoate.

Claim 2 (currently amended) The process as claimed in claim 1, characterized in that it avoids a ~~the~~ extra step of recovering the carboxylate of Zn(II) or Cu(II) that forms ~~formed~~, by post-reaction treatment ~~treatments such as, among others, concentration, crystallization, separation by filtration, decanting or centrifugation and freeze-drying.~~

Claim 3 (currently amended) The process as claimed in claim 1, ~~characterized in that it~~ uses wherein zinc oxide ~~as~~ is the basic metal compound.

Claim 4 (currently amended) The process as claimed in claim 1, ~~characterized in that it~~  
~~uses wherein~~ copper hydroxide ~~as~~ is the basic metal compound.

Claim 5 (currently amended) The process as claimed in claim 1, ~~characterized in that it~~  
~~uses wherein~~ formic acid ~~is as~~ the carboxylic acid.

Claim 6 (currently amended) The process as claimed in claim 1, ~~characterized in that it~~  
~~uses wherein~~ butyric acid ~~as~~ is the carboxylic acid.

Claim 7 (previously presented) The process as claimed in claim 1, characterized in that it is  
carried out with fast stirring of the carboxylic acid and the basic metal compound.

Claim 8 (currently amended) The process as claimed in claim 1, characterized in that  
stirring of the reacted product is maintained in the reactor-mixer itself, while hot, and the  
vapors are absorbed by ~~the~~ a vacuum cleaning system, for the purpose of removing the  
water that forms ~~formed~~.

Claim 9 (currently amended) The process as claimed in claim 1, characterized in that the  
molar ratio of carboxylic acid to basic metal compound ~~and metallic~~ is approximately 2:1, it  
~~being~~ whereby it is possible to work with an excess of 3-6 wt.%, both of the basic metal  
compound and of the carboxylic acid.

Claim 10 (currently amended) The process as claimed in claim 1, characterized in that the basic metal ~~compounds employed are used~~ compound is in the form of particles with a particle size of less than 6.5 mm.

Claim 11 (currently amended) The process as claimed in claim 1, characterized in that the carboxylate is ~~metal carboxylates are~~ obtained with a yield ~~yields~~ exceeding 80%.

Claim 12 (previously presented) The process as claimed in claim 1, characterized in that the exothermic reaction is stirred for 1-5 minutes in stage ii).

Claim 13 (currently amended) The process as claimed in claim 1, characterized in that the mixing in stage i) is carried out in a range of 1500-3000 rpm and the stirring in stage ii) is carried out at 200-400 rpm, and supplementing the stirring in said stage ii) with delumping intensifier turbines which operate in ranges of the order of 1500-3000 rpm.

Claim 14 (previously presented) The process as claimed in claim 1, characterized in that stage i) takes 2-30 seconds.

Claim 15 (previously presented) The process as claimed in claim 1, characterized in that the mixing stage i) takes place in a different reactor to stage ii).

Claim 16 (currently amended) The process as claimed in claim 1, characterized in that in

stage ii), in addition to water, ~~the~~ unreacted organic acids are removed.

Claim 17 (withdrawn) Zinc butyrate, obtainable as claimed in the process of claim 1, characterized in that it comprises a particulate powder with a purity greater than 90%.

Claim 18 (withdrawn) Copper butyrate, obtainable as claimed in the process of claim 1, characterized in that it comprises a particulate powder with a purity greater than 90%.

Claim 19 (withdrawn) Zinc formate, obtainable as claimed in the process of claim 1, characterized in that it comprises a particulate powder with a purity greater than 85%.

Claim 20 (withdrawn) Copper formate, obtainable as claimed in the process of claim 1, characterized in that it comprises a particulate powder with a purity greater than 85%.

Claim 21 (currently amended) ~~The use of the~~ A method for promoting growth in an animal comprising recovering the carboxylate, which is zinc butyrate, from the process of claim 17 and introducing it into feed for the animal as an animal feed supplement for promoting growth.

Claim 22 (currently amended) ~~The use of the~~ A method for promoting growth in an animal comprising recovering the carboxylate, which is copper butyrate, from the process of claim 18 and introducing it into feed for the animal as an animal feed supplement for promoting

growth.

Claim 23 (currently amended) ~~The use of the~~ A method for promoting growth in an animal comprising recovering the carboxylate, which is zinc formate, from the process of claim 19 and introducing it into feed for the animal as an animal feed supplement for promoting growth.

Claim 24 (currently amended) ~~The use of the~~ A method for promoting growth in an animal comprising recovering the carboxylate, which is copper formate, from the process of claim 20 and introducing it into feed for the animal as an animal feed supplement for promoting growth.

Claim 25 (currently amended) The process as claimed in claim 16, characterized in that ~~the~~ unreacted organic acids are recovered by a system of condensation and combination with soluble sodium salts or calcium salts that can be precipitated.

Claim 26 (cancelled)

Claim 27 (currently amended) The process as claimed in claim ~~1~~ 26, characterized in that the carboxylate is zinc(II) formate or copper(II) formate.

Claim 28 (currently amended) The process as claimed in claim ~~1~~ 26, characterized in that

the aminoate is zinc(II) glycinate, copper(II) glycinate, zinc(II) methioninate or copper(II) methioninate.

Claim 29 (currently amended) The process as claimed in claim 1 ~~26~~, characterized in that the carboxylate is zinc(II) formate and the aminoate is zinc(II) glycinate.

Claim 30 (currently amended) The process as claimed in claim 1 ~~26~~, characterized in that the carboxylate is zinc(II) formate and the aminoate is zinc(II) methionate.

Claim 31 (currently amended) The process as claimed in claim 1 ~~26~~, characterized in that the carboxylate is copper(II) formate and the aminoate is copper(II) glycinate.

Claim 32 (currently amended) The process as claimed in claim 1 ~~26~~, characterized in that the carboxylate is copper(II) formate and the aminoate is copper(II) methioninate.

Claim 33 (currently amended) The process as claimed in claim 1 ~~26~~, characterized in that the ratio of the percentages by weight of carboxylate and aminoate comprises a range from 30/70 to 70/30.

Claim 34 (currently amended) The process as claimed in claim 1 ~~26~~, characterized in that the removal of water is accomplished by adding an absorbent and heating in the range 90-98°C.

Claim 35 (currently amended) The process as claimed in ~~in~~ claim 34, characterized in that ~~the~~ a dry product is obtained that is subject to ~~undergoes~~ an additional process of grinding.

Claim 36 (currently amended) The process as claimed in claim 1 ~~26~~, characterized in that the removal of water is accomplished by submitting the mixture of carboxylate and aminoate to vacuum conditions and stirring with delumping intensifier turbines at a speed of 1500-3000 rpm.

Claim 37 (original) The process as claimed in claim 36, characterized in that the temperature is maintained between 80°C and 130°C.

Claim 38 (currently amended) ~~The use of~~ A method for promoting growth in an animal comprising recovering the zinc(II) formate-glycinate obtained as claimed in claim 29 and introducing it into feed for the animal as an animal feed supplement for promoting the growth.

Claim 39 (currently amended) ~~The use of~~ A method for promoting growth in an animal comprising recovering the zinc(II) formate-methioninate obtained as claimed in claim 30 and introducing it into feed for the animal as an animal feed supplement for promoting the growth.

Claim 40 (currently amended) ~~The use of~~ A method for promoting growth in an animal comprising recovering the copper(II) formate-glycinate obtained as claimed in claim 31 and introducing it into feed for the animal as an animal feed supplement for promoting the growth.

Claim 41 (currently amended) ~~The use of~~ A method for promoting growth in an animal comprising recovering the copper(II) formate-methioninate obtained as claimed in claim 32 and introducing it into feed for the animal as an animal feed supplement for promoting the growth.

Claim 42 (currently amended) The process as claimed in claim 1, characterized in that prior to mixing with the dry basic compound of the divalent metal ~~metal base~~, a hydroxy analog of methionine is poured onto the carboxylic acid, giving rise to a carboxylate-methioninate hydroxy analog of divalent metal.

Claim 43 (currently amended) The process as claimed in claim 42, characterized in that the carboxylic acid, the hydroxy analog of methionine and the ~~metal base~~ dry basic compound are mixed in ~~the~~ molar proportions of 2:2:2.

Claim 44 (currently amended) The process as claimed in claim 42, characterized in that mixing of the carboxylic acid and the hydroxy analog of methionine is carried out in a first reactor different from that for the mixing in stage (i) ~~addition of the basic metal compound~~.

Claim 45 (currently amended) The process as claimed in claim 44, characterized in that the second reactor already contains the basic metal compound ~~when the~~ and a mixture of carboxylic acid and hydroxy analog of methionine is added thereto.



Claim 46 (original) The process as claimed in claim 45, characterized in that the basic metal compound, the carboxylic acid and the hydroxy analog of methionine are mixed at a speed of 200-600 rpm.

Claim 47 (previously presented) The process as claimed in claim 42, characterized in that the removal of water is promoted by heating the mixture in the range 80-130°C.

Claim 48 (previously presented) The process as claimed in claim 42, characterized in that the removal of water from the mixture is accomplished by subjecting the mixture of basic metal compound, carboxylic acid and hydroxy analog of methionine to vacuum conditions and stirring with delumping intensifier turbines at a speed of 1500-3000 rpm.

Claim 49 (previously presented) The process as claimed in claim 42, characterized in that the metal carboxylate is zinc(II) formate or copper(II) formate.

Claim 50 (currently amended) The process as claimed in claim 42, characterized in that the ~~metal base~~ is zinc(II) oxide or copper(II) hydroxide.

Claim 51 (currently amended) The process as claimed in claim 42, characterized in that the metal carboxylate is zinc(II) formate and the ~~metal base~~ divalent metal is zinc(II) oxide.

Claim 52. (currently amended) ~~The use of~~ A method for promoting growth in an animal comprising recovering the formate-methioninate hydroxy analog of zinc obtained as claimed in claim 51 and introducing it into feed for the animal as an animal feed supplement for promoting the growth.